

REMARKS

Claims 1-5 are pending and rejected in this application. Claim 6 is added hereby.

In reviewing the Specification and Drawings in order to respond to the present Office Action, Applicants noticed two reference numerals were omitted from Fig. 2. Accordingly, as shown on the corrected drawing sheet for Fig. 2 enclosed herewith, Applicants propose the addition of reference numerals 27' and 58 thereto. Added reference numerals 27' and 58 are described at page 8, lines 5-7 of the present specification, wherein it is stated that "[w]ell 58 for retaining and centering return spring 27' is substantially central to the armature and thus is exposed to primarily axial flux vectors". Further, the lead line for reference numeral 27' was placed on the original Figure 2 drawing sheet, but the actual numeral omitted. Thus, Applicants submit that the proposed corrections embodied in the enclosed corrected drawing sheet for Fig. 2 includes no new matter, but rather simply conform the Figure to the Specification.

Responsive to the rejection of claims 1-5 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,202,697 (Oyama, et al.), Applicants respectfully traverse.

Oyama, et al., discloses a pressure control valve including a primary pole
5 piece 15 (Fig. 1), a secondary pole piece 16 and an armature 12. Spool 2 moves toward and away from low-pressure pressure chamber I to thereby form a variable throttle valve between land portion 2a of spool 2 and high pressure source port 6 and another variable throttle valve between land portion 2b of spool
10 2 and the low pressure source port 8. (*column 3, line 63 through column 4, line 15*). Actuating element 12 is integral with and supported by spool 2. (*column 4, lines 44-47*)

In contrast, claim 1 recites in part "an armature . . . having a side wall terminating in . . . a trailing face oriented away from said device, . . . said trailing face remains outside said secondary pole piece at all axial positions of said
15 armature". (*Emphasis Added*). Applicants submit that such a limitation is not disclosed or suggested by the cited reference, and includes distinct advantages thereover.

Oyama, et al., discloses only that the pressure control valve actuating element moves toward and away from low pressure chamber I. Oyama, et al.,

does not disclose or suggest that the actuating element/armature has a trailing face, nor does Oyama, et al., disclose that the pressure control valve is configured to limit or in any way control the movement of the actuating element or armature such that the trailing face of the armature remains axially outside of or above the secondary pole piece through the entire range of movement of the armature or actuating element. The actuating element of Oyama, et al., does not extend nor is a trailing face thereof disposed axially outside of the second pole piece. Only the spool extends outside of the secondary pole piece. The spool is not the actuating element or armature. Thus, Oyama, et al., fails to disclose an armature having a side wall terminating in a trailing face oriented away from the device to be actuated, with the trailing face remaining outside of the secondary pole piece at all axial positions of the armature, as recited in part by claim 1.

The present invention includes distinct advantages over the cited reference. Parasitic losses within the solenoid are reduced, and thus the working force of the solenoid is increased, by extending the side wall 60 of the armature axially beyond the outer axial face 44' of the secondary pole piece 32' such that end 62 of sidewall 60 does not break the plane of face 44' during the operational stroke of the solenoid. Magnetic pull back is also reduced. (*page 8, lines 9-12 of the present specification*).

For the foregoing reasons, Applicants submit that the cited reference fails to disclose or suggest the subject matter of claim 1. Therefore, claim 1, and claims 2-3 depending therefrom, are now in condition for allowance. Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of
5 claims 1-3.

Claims 4-5 were also rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,202,697 (Oyama, et al.), Applicants respectfully traverse.

Claim 4 recites in part "an armature . . . having a side wall terminating in . .
10 . a trailing face oriented away from said device, . . . said trailing face remains
outside said secondary pole piece at all axial positions of said armature".
(*Emphasis Added*). Thus, claim 4 recites subject matter substantially similar to the subject matter of claim 1, which is in condition for allowance for the reasons given hereinabove. For the same reasons given above in regard to claim 1,
15 Applicants submit that claim 4 and claim 5 depending therefrom are in condition for allowance and respectfully request same.

Claim 6 has been added hereby to further protect the patentable subject matter of the Applicants invention. Claim 6 recites in part "an armature . . .
having a side wall terminating in . . . a trailing face oriented away from said

device, . . . said trailing face remains outside said secondary pole piece at all axial positions of said armature" and "a pintle carried by said armature, said pintle extending through an axial bore in each of said primary pole piece and said secondary pole piece". (*Emphasis Added*).

5 As discussed above, Oyama, et al., fails to disclose or suggest an armature with a side wall that terminates in a trailing face that remains axially outside of and/or above the secondary pole piece at all axial positions of the armature. Further, Oyama, et al., as discussed above, also fails to disclose or suggest a pintle shaft carried by the armature, and which extends through axial
10 bores in each of the primary and said secondary pole pieces, as recited in part by claim 6. Thus, claim 6 also is in condition for allowance, which is hereby respectfully requested.

For all the foregoing reasons, Applicants submit that no combination of the cited references teaches, discloses or suggests the subject matter of the pending
15 claims. The pending claims are therefore in condition for allowance, and Applicants respectfully request withdrawal of all rejections and allowance of the claims.

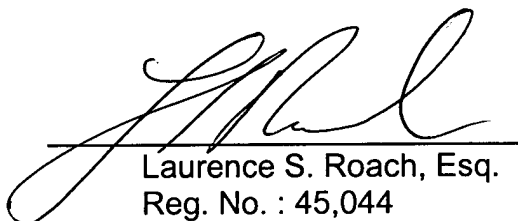
In the event Applicants have overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee,

Applicants hereby conditionally petition therefore and authorize that any charges be made to Deposit Account No. 50-0831, DELPHI TECHNOLOGIES, INC.

The Examiner is invited to telephone the undersigned in regard to this Amendment and the above identified application.

Respectfully submitted,

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Date


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